Southern Spectrums:

The Raw to the Smooth Edges of Energopower

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Abstract

With a focus on the energy nexus around a nuclear power plant in peninsular south India that has been under construction since 2002, this chapter revisits Dominic Boyer proposals for how 'electropolitics infuse governance' (2015: 534) with reference to his term, 'energopower'. In the postcolonial context, we have a case of modern governmentality entwined with more direct and authoritarian government that follows on from colonial regimes. With the nuclear power plant, the state has intensified its presence in the region through extra policing, paramilitary presence, and attendant development projects. Such recent phenomena have met with an ambivalent if not outright hostile reception among local communities. The politics of electricity apply differentially to varied constituencies marked by local, national and transnational power relations, provisions and sites through, along and against the grid. Accordingly, Boyer's 'energopower' need be further qualified: from Foucauldian notions of modern governmentality that corresponds most closely with Boyer's energy politics to forms of more direct government in what I have called the raw politics of energy: in an adaptation of both Boyer and Achille Mbembe, necro-energopower.
I love to dance in tune with the beat of drums and good music. But now I dance with all my energy to the tune of songs like ‘Velkave Velkave Anukulaye ethirku makkal poraattam velkave…’ [Win, win, people's power against nuclear power] that a brother from Kudankulam village made against the KKNPP [Kudankulam Nuclear Power Plant]. It fills my mind with the determination that on no account should the plant be established here or anywhere in the world. If I can stop the plant with my legs and hands, I will keep on dancing forever so that the world will not see any more Chernobyls, Fukushimas, Hiroshima and Nagasaki. I think that there is enough knowledge in the world to decide to stop this.¹

This is the view of Ignatius, a young boy from a coastal village called Idinthakarai in the south Indian state of Tamil Nadu. He was caught up in the struggle against a nuclear power plant in the neighbouring village, Kudankulam, that saw its acme from 2011-2014 with thousands of people protesting against the development only a couple of kilometres from their homes (Figure 1). He is one of the more confident and outspoken of the children who reside in the village. Others too joined him in the chorus – girls and boys, women and men, coastal, rural and urban supported by many people across the nation particularly those others based in regions where new nuclear reactors had been earmarked for development. To a greater or lesser extent, support also extended to international circles, despite the fact that there were
national security hurdles among other limitations when mobilising ‘transnational activist networks’ (Edelman 2001) on the nuclear issue (Kaur 2019).

For many of those based in Idinthakarai, their struggle was not specifically against energy, electricity or development, nor was it merely a symptom of a NIMBY ‘not in my back yard’ sentiment. Rather their appeal was for a less costly, safe and more sustainable, ‘people-friendly’ form of electricity production and distribution, rather than the authoritarian conduct, regulations and militarisation that accompanied the construction of a nuclear power plant in the region.

Dominic Boyer makes an incisive and influential proposal about the need to highlight the politics of electricity in contemporary social analyses. ‘Electropolitics infuse governance’ (2015: 534) he affirms when discussing the grid of electricity as a disciplinary mechanism or a control apparatus exerted over a population – in a neologism, energopower (2011). He elaborates: ‘modalities of “biopower” (the management of life and population) today depend in crucial respects upon modalities of energopower (the harnessing of electricity and fuel) and vice versa’ (2014: 309). In the process, energy and related infrastructures become imbricated in subtle, smooth and what become rational forms of power and structures. However, Boyer appears to overlook the fact that in the global South, we continue to have a case of modern governmentality entwined with more direct and authoritarian government that follows on from colonial regimes. The hangover of British imperial governmentality layered with a promising democratic constitution and new procedural mechanisms to do with transparency and accountability are the hallmarks of the postcolonial Indian state. Its particularities owe to the exclusionary mechanisms of colonial government, an apparatus that has carried over into the contemporary era in what has been termed by Hamza Alavi (1982) as an ‘overdeveloped state’. Described as ‘a twilight zone of multiple, indeterminate configurations of power and authority’ (2006: 302), Thomas Blom Hansen and Finn Stepputat aptly conjure up the
colonial conjunction of brute force, despotism, lawlessness along with the exercise of liberal ideas about rights and the rule of law that had developed in the west when transplanted in India.

This then raises my main contention: energopower as Boyer and others have proposed, is overly derived from Michel Foucault’s (1991) proposals for modern biopolitics. Thus conceived, it applies more to urban and metropolitan populations far removed from sites of electricity production. By metropolitan, I refer to a nexus of ‘grid governmentalities’ located largely in the global North but also extending to metropolitan and other relatively affluent and grid-connected urban centres across the global South. As Akhil Gupta observes with respect to the modern lifestyles of emergent middle classes in India, there is a strong case to be made for ‘the colonization of their imagination of the future’ by the ‘rich citizens of the global North’ (2015: 566). While the notion of modern governmentality applies to the global North and elite urban contingents in the global South, it is on its own insufficient to account for the violence and authoritarianism that attends energy infrastructures at other ends of the grid.

Boyer’s oversight with respect to the raw or rough edges of energopower is surprising considering that the Mexican isthmus of his fieldwork site also has seen the rise of violent tensions and uprisings around the development of gigantic wind turbines (2014: 324-5). The energy produced on the isthmus is primarily to serve industrial corridors and metropolitan hubs in Mexico and across the border in the USA, and has not come without repression and resistance against the ‘marketisation and militarisation’ of the region (Dunlap and Fairhead 2014). This appears to be an oversight in his theorisation for he is well aware of the political authority of centralised grid systems, as he is of ‘the rights of indigenous communities, environmental impacts, and resource exploitation’ that have marked the anthropological study of energy (Boyer 2014: 313), and the prospect of ‘carbon modernity’s accelerating death-bringing in the name of enfueling human life’ (2014: 318). Indeed, he states that ‘biopower in
southern Mexico is, for good or for ill, an often forgotten partner in the transactions between old and new regimes of energopower’ (2014: 325).

With respect to the nuclear issue, on the one hand, there is an accentuated collusion between the state and nuclear departments and organisations where both state and atomic energy took on the role of fetish (see Abraham 1998). Elsewhere, I have referred to this unyielding nexus of state-corporate-military power that implanted itself in the region as the ‘nuclear state’ (Kaur 2013). On the other, there are discrepant inscriptions on the populace in, as Partha Chatterjee suggests for regions characterised by vast economic discrepancies, where the marginalised ‘are only tenuously and even then ambiguously and contextually, rights bearing citizens in the sense imagined in the constitution’ (2004: 38). As a consequence, their views are either suppressed altogether or only taken on board as a procedural matter with the staging of public hearings where officials record, log and file the hearing, leaving a paper trail as to its evacuated execution (Kaur 2013, see Sharma and Gupta: 2006: 13-14).

The strong overdeveloped state is therefore attendant with what could be described as a relatively week and ‘underdeveloped civic space’ (although this is not to pose civic space in the west as the normative standard) where large swaths of the populace are not decreed citizens in the sense of participating in what could be called ‘civil society’, and more as Chatterjee (2004) describes, constitute an arena of ‘political society’, the latter consisting of subaltern populations such as Dalit (historically known as Untouchable castes), fishing and farming communities. Although he has been contested for the rigidity of this civil-political binary, the extremities of the metropolitan-marginal spectrum are undeniable - a marginal that might be physically located in the urban context as with slum dwellings, or totally removed from it in terms of rural, forest/jungle and coastal hinterlands. Correspondingly, a manner of provisions including electricity - widely backed up by home-based diesel electric generators
when needed - flow relatively smoothly for certain contingents, but not so much for others who are only marginally inscribed into modern biopolitical technologies of power.

Energopower as it applies to the postcolonial state then needs to take on board a more discrepant, twilight character. It needs to be qualified for differentials in the equation between energy and politics as it applies to divergent contexts – a complex that I refer to as ‘southern spectrums’ in the title. The diffuse and indirect nature of grid governmentalities discussed by Boyer both oppose, and mask or deflect from a series of direct and authoritarian government exacted on others, the ‘smooth’ with respect to the ‘rough’ or ‘raw’. The spectrums of violence therefore extend along the grid, from governmental dispositions concentrated in the North (aimed at replacing the brutality of physical violence through measures to do with knowledge-making, community management and ‘soft power’) to the ‘raw power’ of necropolitics rabid among marginalized and remote communities concentrated in the hinterlands particularly in the South.

While according to Foucault (1991), the modern state organises and affirms the lives of populations in biopolitics, following Achille Mbembe (2001), necropolitics emphasises the centrality of death to the organization of socio-political life. The latter is a return to what Foucault would understand as archaic notions of sovereignty but, as Mbembe reminds us, pugnaciously continues in the modern era in a relation of dependence. Marisela Montenegro, Joan Pujol-Tarres and Silvia Posocco elaborate: ‘necropolitical logics enact a politics of death in the name of vitality that defines which lives are worth protecting and which are deemed disposable’ (2017: 143). In the case of nuclear power plants in India, biopolitics is centred around urban elites. Necropolitics hover around the marginalised who are deemed incidental and even dispensable to this mainstream narrative - the likes of low caste-class peasant, fishing and tribal communities. 

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On a related point, nuclear biopower channels Boyer’s ‘conceptual lens’ on energopower (2014: 326) another direction: by highlighting how the science of nuclear energy has entered into the micro-management of our everyday lives, often invisibly. Nuclear biopower is not only to do with the provision, distribution and governance of electricity but fans out to encompass medical science, X-ray diagnostic applications and studies, agricultural developments, irradiated foods and other goods, industrial radiography, building and road construction material, coal and nuclear power plant emissions, the nuclear fuel cycle from uranium mining and milling to the disposal of spent fuel, to complement other activities such as the long duree impact of atmospheric, sea and underground nuclear tests that we have had to live by. While radioactivity might appear in our natural environment, nuclear biopower is about how it has been scattered by specialists of different orders into diverse operations to manage and enhance the lives of populations as a manageable byproduct of a (national) good that have themselves become normalised with respect to the individual and country’s growth, power and protection.6

Nuclear necropower as oppose to biopower reverses the optics. By focusing on the deathly underside, alter-worlds are emphasised. Mbembe (2001) develops the concept not through a focus on life-worlds, but ‘death-worlds’ to refer to conditions of colonisation, slavery and apartheid in which people are subjected to a status of ‘living death’ under technologies of destruction, or what he terms necropower. From this perspective, death conditions may emerge by way of technologies that, on the one hand, claim to be life-enhancing but, on the other, can be revealed to be life-destroying.7 In the case considered here, the supposed smooth operations of nuclear science are disrupted to create death conditions for those who have little to benefit from them.8 The project of life-enhancement by generating electricity and other goods through nuclear power for metropolitan and industrial hubs comes at huge risks to those living around and objecting to nuclear power stations, a
deathly biopolitics. So whereas biopolitics is ‘to make live and to let die’ as Foucault might have it, necropolitics is ‘to make die and let live’ (2004: 247). The latter is not an archaic form of government for it has persisted into the modern era along with biopower. In the Idinthikarai case, the lives of those who dissented were death-dispensable to the life-power of urban and industrial needs located miles away.

In the rest of this chapter I consider how fishing and farming communities around the Kudankulam Nuclear Power Plant have become the ‘bare life’ (Agamben 1995) for metropolitan and corporate or industrial interests for more energy, more power. The marginalised then become the often silenced ‘sacrifice’ to ideas about the nation’s development and progress onto which the raw politics of energy is exacted. What Boyer’s energopower excludes from its focus is how biopolitics also has its darker underside, where supposedly life-enhancing technologies might lead to a ‘living death’ when seen from other perspectives. Accordingly, energopower need be qualified: from Foucauldian notions of governmentality that corresponds most closely with Boyer’s energy politics, to, on the other side, more direct government in what I have called the raw politics of energy: in an adaptation of both Boyer and Mbembe, necro-energopower.

**Necro-Energopower in India**

The 1990s marked a significantly new era in the Indian political economy with the onslaught of neoliberal policies and the rapid growth of trans/multinational ventures and consumer society. Development projects had also taken on breakneck speed as deals were struck up and down the country with the larger mission to make India a regional superpower. It was a decade where economic liberalisation began to wreak havoc on the lives of the poor and dispossessed, where the judicial and political system became more under the sway of multimillion dollar development projects (see Nilsen 2012), and a period in which, along with
Pakistan, India declared itself a nuclear weapons state (Abrahams 1998, Bidwai and Vanaik 1999). With these developments came a thirst for power, electricity being the torch that will lead the way to development and regional, if not global supremacy.

Although the Indian government seeks to develop a diversity of energy pathways, the exorbitant costs of nuclear expansion are to the detriment of enhancing alternative forms of energy. The nuclear option became heralded as the primary way to increase bulk power: catering literally to the shortage of electricity supplies as well as purportedly dealing with the excesses of climate change (see Kaur 2011, Ramana 2013); while nurturing all along, as the subcontinental metaphor goes, a political and economic tiger.

These plans are very much based on grand top-down Nehruvian or statist models adapted for a neoliberal age - that is, the Indian state has not entirely relinquished to market-driven forces; rather it continues to have a strong hand orchestrating police, (para)military, surveillance among other agencies in their market-led endeavours. ‘Big development’ (see Ramana 2013) as it applies to nuclear infrastructures remains monolithic and state-centric, but now enmeshed in widening national and transnational corporate ties. The state has adapted its centrality to engineering development plans in a context of market reforms, where the latter is a considerable but not the only influence on governmental policy, practice and process. In this changing configuration of national-global relations, local lives matter little when flattened in what Lochlann S. Jain describes as the ‘immortal timeline’ of globalising capital (2013: 49).

With respect to nuclear energy, the changes are signalled by a number of national and trans/multinational arrangements to build nuclear power plants across the country in the wake of the India-US civilian nuclear agreement (2005). This agreement enables India to trade with the 48 members of the Nuclear Suppliers Group even though it is not a signatory to the Nuclear non-Proliferation Treaty (1970). The accord was upheld with India’s pledge to maintain its voluntary moratorium on nuclear tests, to not share nuclear material and
technologies with others, and to permit International Atomic Energy Agency (IAEA) inspection of fourteen of India’s twenty-two reactors in a phased manner from 2006 to 2014.

Even though the history of the Kudankulam Nuclear Power Plant goes back to earlier decades, its development was picked up only at the turn of the millennium. The plant is an India-Russian collaboration, first announced under Congress leadership, and signed by the countries’ two premiers, Mikhail Gorbachev and Rajiv Gandhi, on November 20, 1988. This agreement was then shelved only to be revisited a decade later. Under renewed negotiations between the Indian and Russian governments, two reactors underwent construction from 2002.

The planning itself of nuclear plants engraves a national necro-politics. The constructions are invariably located in the vicinity of those populations and regions deemed ‘disposable’ – in this case, regions populated largely by fishing and farming communities and well away from the density of metropolitan centres. The entry and entrenchment of nuclear and bureaucratic elites from the powerful cities of the north to this southern peninsular - representing central government in collaboration with foreign powers and corporations (in this case, the Russian Federation’s Atomsroyexport) - has proved to be an oppressive force in peoples’ lives in the vicinity of Kudankulam.

Indeed, prior to the 1980s, Kudankulam used to be a fairly insignificant and relatively impoverished inland village. By the turn of the millennium it was indelibly marked on India’s nuclear map. With minimal compensation to land owners, about 929 hectares of land were taken for the project and another 150 hectares for the township, Anuvijay, located about 10 kilometres away further down the coastline (Moorty 2000). One of the most ironic features is how relatively uninterrupted flows of electricity are largely due to the wind farms that have been erected by companies like Suzlon and Prem along the stretch of this district (Figure 2). The turbines were erected principally to feed the plant and Anuvijay residents.
Security, intelligence and related operations tagged this region to the central state. The gates to the nuclear plant and township are akin to national border security. Central Industry Security Forces, with their signature red berets and their deep khaki uniforms patrol the imposing fence and gate. There is a board at the gate to the plant reminding viewers and visitors alike that this is a prohibited zone and, and any offence would be punishable under the Atomic Energy Act 1962 (section 33) and the Officials Secret Act 1922 (section 9/19). Along with a neat picture of the nuclear plant with the caption, a ‘Government of India enterprise’, the edge of the main Kudankulam junction is surrounded by a small clinic, a medical store, a newly built police station, various other small shops and tea stalls, and the Sri Ram Orthopaedic Hospital. A bulbous white Ambassador car with blacked-out windows would be constantly stationed at the corner, presumably carrying officers from the Intelligence Bureau to keep an eye on visitors or any suspicious activities. By 2011, this sparse surveillance was bulwarked with cordons of security forces, paramilitary and police when local resistance against the plant came to a volatile head (Kaur 2012).

‘Development Kills’
By mid-2012, the state machinery clamped down on the village of Idinthakarai where the People’s Movement Against Nuclear Energy (PMANE) has had its base from 2011-2015. Over time, PMANE protesters’ claim to legitimate citizenship was revoked with police and paramilitary sieges, ambushes and countless arrests in order to muzzle dissent. As their movement got bigger and their appeals grew louder, they progressively became reduced to ‘bare life’ (Agamben 1995) – a designated exclusion and dehumanisation of those who are at the margins and/or choose to dissent even when this is technically permitted in a democratic constitution.
The death conditions that were created around the nuclear power plant can be viewed in terms of three overlapping modalities: first, through the quick fire policy of state violence as with shooting at people who protest against state plans or through the hiring of henchmen. Second, death conditions were brought on by association due to state neglect and the inflicting of punitive strategies of intimidation, harassment and undue stress upon anti-nuclear protesters and their families. Third, nuclear necropolitics was vindicated silently through an encroaching death where nuclear industries subjected communities to a life of uncertainty, exploitation and environmental hazard (Figure 3). The latter might accompany contact with radioactive material or through the radionuclide emissions from reactors in general that enter into the food chain and the DNA of neighbouring residents, a substantial percentage of whom will succumb to genetic mutations, disease and death over the decades. The onslaught of such developments has led to new subjectivities in which people become inscribed into ‘the necropolitics of radiation’ (Sabu 2011). As one person summarily dismissed it on a paper hat at an anti-nuclear cultural event in Idinthakarai in 2012: ‘Development kills’ (Figure 4).

As a blatant sign of the first modality of death in the hands of law enforcement agencies: Anthony John was shot by the police in a nearby town during a solidarity protest in nearby Tuticorin after the police and paramilitary blockaded those in Idinthakarai in March 2012 (Figure 5). Other earlier deaths of anti-nuclear protesters at the hands of paragons of the state were of one other man, Ignatius, who was killed in a police firing at an anti-nuclear march in 1988 when the plant was first announced. This toll in south India is on top of the death of other anti-nuclear protesters in other parts of India. For instance, 40 year old activist, Irfan Qazi, died in 2011 when a police officer driving a Sumo rammed into his scooter near to the site proposed for the Jaitapur nuclear power plant in Maharashtra with the French company, Areva, now replaced by EDF. In all cases, the authorities have denied culpability.
Other protesters were killed through state neglect after they were arrested and put in prison, or through intimidating actions that led to accidental deaths (an explanation also given for the more deliberate deaths cited above). Sahayam Francis was a father of three young children who fell from a height after Indian Coast Guard surveillance planes dived within a few meters above protesters’ heads in 2012. He was watching those engaged in civil disobedience in Idinthakarai who were standing in a chain in the waves on the beach for \textit{jal satyagraha}: following Mohandas Karamchand Gandhi’s anti-colonial campaigns, \textit{jal satyagraha} alluded to the ‘truth force’ embodied in people and the sea (see Hardiman 2003, Nilsen 2012). As another vindication of the second modality of death conditions, J. Roslin was a woman in her 60s who died shortly after spending time in jail for peaceful protest in 2012 under the charge of ‘Waging War against the Government of India’ (Figure 5). She had a severe ailment that led to her further deterioration in prison. She was released on bail and asked to sign into a Madurai police station every week, an overland journey that took five to six hours one way. Shortly after being released on bail, she succumbed to her illness.

People were both saddened and incensed, believing her death was yet another outcome of ‘state vengeance’. As Nityanand Jayaraman reports:

Roslin is a victim of neglect, and the vengeance of a state that views the very holding of a contrary opinion on nuclear power as a crime warranting imprisonment under harsh sections.\textsuperscript{11}

The sheer stress of protesting against a mammoth power took its toll. Elsewhere, elderly farmers have died due to the stress of a sit-in since 2010 against land acquisition plans for the Gorakhpur nuclear power plant in Haryana – Ishwar Singh Siwach, Bhagu Ram and Ram Kumar.\textsuperscript{12}

An even slower deathly specter was by way of radionuclide emissions released into the environment, the rise of the sea water temperature due to the discharge of water coolant
that would disturb and possibly contaminate sea life and, as a consequence, further jeopardise fishermen’s livelihoods. This was akin to a ‘future present death’ where present concerns were exacerbated by future prospects. Exposure to the high background radiation in the neighbouring district of Kanyakumari is deemed to be ‘higher than the world average value reported by UNSCEAR [United Nations Scientific Committee on the Effect of Atomic Radiation] (2000)’ (Ajithra 2017: 33). Along with sand-mining of monazite sands (an alpha-radiation emitter) along the southern coasts, it has predisposed the population to a high rate of genetic mutation and related diseases. Having nuclear reactors in the region would undoubtedly increase the ionising radiation levels.

These death-conditions were combined with life-destroying strategies that extended to peoples’ livelihoods and their freedom of movement. For those known to be living in Idinthakarai, a number of coercive and punitive measures were adopted. Since the escalated anti-nuclear struggle at Kudankulam from 2012, more than 55,000 people have been charged in about 170 First Information Reports, charges of a cognisable offence, from the nearest police station to KKNPP in Tirunelveli district. Of these, about 8,000 had been accused of ‘sedition’ and ‘waging war against the state’, allegations that carry with it the prospect of a death penalty. Typically, a few names would be mentioned in any charge with the added number of 2-4,000 to add to the list of named individuals. The exact figures have vacillated along with the prevarications of officials.

Some people were even revoked of their citizenship literally, when passports were impounded, new ones not issued, and old ones not renewed. This was particularly problematic for those fishermen who needed to travel abroad for work and training. It also posed a problem for activists who wanted to travel abroad even if they did not technically need a passport. For instance, travel to the neighbouring country, Nepal, ordinarily does not require a passport. But when the PMANE spokesperson, Dr S.P. Udayakumar, was
at the airport in New Delhi in September 2014 in order to attend a United Nations Special Rapporteur on Human Rights Defenders meeting at Kathmandu, he was not able to board the plane and instead taken away for questioning.\textsuperscript{15}

**Great Divides**

People in the peninsular region felt that they were hinterland underdogs for power interests emerging in large cities to the north that have increasingly taken on a global wrench. One person, Rajesh, who I talked to, despaired and admitted: ‘We have to sacrifice ourselves for the nation. The greater good is for the nation.’ By comparison, his friend was bitter about this enforced sacrifice: ‘We are like guinea pigs [for the nation] and are forced to suffer’. The need for electrical power was a driving issue for ‘city people’, but not necessarily them. Krishna explained: ‘The people there were brain-washed into thinking that they will get more electricity through the plant. So there was more support for it than here’.

Residents noted that those in distant cities have little understanding of local issues in the hinterlands. Indeed, many of them did not care for they had much to profit from the plant. Manick elaborated:

This is all happening here because of power crisis in Delhi which is dictating the terms here. India seen to have an energy crisis and nuclear is the answer without enough investment and research in alternative energy sources – due to the Brahmanic lobby. Caste attached itself to class and regional politics in terms of the ‘Brahmanic lobby’. As go arguments about whiteness (see Dyer 1997), this discourse refers to the institutional power of (neo-)Brahmanic hegemony, rather than that Brahmins are inherently powerful. M.V. Ramana describes the (neo-)Brahmanic nuclear enclave as part of an ‘elite priesthood’ (2003: 207) noting in particular that the structure of the Department for Atomic Energy is hierarchical and not conducive to dissent.
It is true that nuclear departments are not open to quotas for Backward and Scheduled Castes. Indeed, there seems to be an utter disregard for the poor and lower castes who work as daily labourers in the nuclear industry, exposing them to various health hazards. In a variation of David Goldberg’s (2009) term, ‘neoliberal racism’ - one that promises equality and social inclusion while at the same time contributing to the ‘passive extermination’ of racial minorities - here we have a case of neoliberal elitism where passive extermination is rooted in trenchant caste-class hierarchies and fears of the numerical expansion of the poor. Sankaran Krishnan expands how this elitism comes with a murderous impulse where they would quietly look the other way if the ‘masses’ were ‘disappeared’. Krishnan elaborates:

This self-imposed distance between the middle class and the ‘masses’ sometimes partakes of a genocidal impulse, as is indexed in many milieux - everyday expressions of desire for a country with a smaller population; the occasional wild-eyed scheme for secession from the rest of India by momentarily prosperous enclaves such as the IT sector in Bangalore or parts of Mumbai or Gujarat or Punjab; the oft expressed idea that it may not have been a bad thing if Sanjay Gandhi had had a relatively freer hand for a few more years back in the mid-1970s [with his compulsory sterilization programmes]; urban planning schemes that fantasise bypassing slums through freeways, sub-ways, hovercrafts and helicopters - but is more often indicated by a simple wish for the masses to simply, magically, disappear (Krishnan 2006: 2327).

Krishnan goes on to identify a liberal discourse trenchant among nuclear experts as well. With his analysis of the atomic scientist, Raja Ramanna’s autobiography, Years of Pilgrimage, he concludes that he too ‘loves the masses in the abstract but detests each one of them individually’ (2006: 2329). In the neoliberal era, it would seem that even the long-distant love for the masses has virtually disappeared.
(Neo-)Brahmanism characterises many of the powerful institutions that are seen to constitute the fulcrum of national security and where reservations are not in place, as with high security think thanks, Intelligence bureaus, nuclear agencies and the like. In Krishnan’s view, it is as if ‘upper castes are uniquely fit to govern India and any dilution of their presence could only mean an impoverishment of quality’ (2006: 2328).

Almost three thousand kilometers away, New Delhi, the site of central government and symbolic of the tyranny of the north in particular, was seen as too cut off from this southern peninsula. It was like a different planet associated with wealth, business and enterprise, comfort, capital and pomposity where it was deemed that about half of the population was complacent and conservative government servants. The highly electrified metropole represented the epitome of a hunger for power, literal and metaphorical, all too evident amongst people removed from the toils and troubles of mining for atomic minerals and nuclear expansion in rural, tribal and coastal areas of the subcontinent. Their thinking being, according to Manick:

For them if it provides power, it is justified… Before this [construction of the plant], nobody bothered us. They weren’t interested in this place. It was just the end of India for them.

Some people in the region directly compared the encroachment of a ‘nuclear grid government’ as a form of neo-colonialism where people’s lives were oppressed and their rights abrogated as under the British in the colonial era. Udayakumar describes the phenomena as ‘nucolonization (nuclear + colonization)’ (Figure 6). To similar ends, a leaflet from 2002 by the Conservation of Nature Trust that is based in the nearby town, Nagercoil, about 30 kilometres from the Koodankulam Nuclear Power Plant, declared:

The Russians may be happy over the pact as it will boost its dollar hungry economy with an inflow 360 crore of US dollars (Rs 173,000 crores) work as this is entrusted to
300 industrial units in Russia which will manufacture parts for the VVER-1000 Reactors. It is like manufacture of cloth in Manchester, England for India in the Pre-independent India. The much publicised job opportunity for the local labourers is only a mirage (sic).\(^{17}\)

The inequities of colonial exploitation of India’s resources and manpower were likened to the current scenario where Russian technology was brought by Indian authorities at exorbitant costs that were then borne financially and environmentally by the Indian government and by extension, Indian people.

Conservationist, Dr Samuel Lal Mohan, pointed to the collusion between Indian and foreign metropolitan elites:

The Atomic Energy Commission officials sitting in New Delhi, Bombay, Chennai or Moscow do not understand the ground realities of failed crops and the poverty of stricken farmers…Further an amendment is suggested in the Kyoto protocol (which prescribes reduction of Carbon emission by 5% of 1990 level) that building of Nuclear Power Plants, in poor and underdeveloped countries by the G-7 countries like USA, UK, Canada, Russia and Japan, as an effort to reduce Green House Gases like Carbon-di-oxide. The global environment fund, and World Monetary Fund and World Bank may support such funding for building Nuclear Reactors at the instance of the USA. So Russia may utilise this ‘Pro-Environment’ or ‘Environment friendly’ funds of G-7 countries to build Nuclear Power Plants in India, and escape the Kyoto protocol by back door. We should not fall prey to the International game played on the poor countries by the rich countries. For shorter goals let us not sacrifice our precious environment [sic].\(^{18}\)

Udayakumar elaborated on the power dynamics in much blunter terms:
Religious leaders are sell-outs. Political leaders are idiots. Business leaders are into money-making and that’s it….It’s an issue about poverty and powerlessness. It is the poor people who will be most affected. They do not know what’s going on. Powerless people are more vulnerable. The middle classes can run away to another town or city.

Promises made by nuclear authorities about more development and electricity for the region might have seduced some in the early days, but many became convinced that their health and livelihoods were not worth the price that had to be paid. The ‘more jobs’ mantra became despised as a ‘myth’ as there was little employment in the nuclear plant itself for local people after its construction was complete – the first reactor to be commissioned in 2013 followed by the second in 2016. All the other nuclear bounty deliverables were undermined as well: more electrical power - but this was less so for the region and mainly for cities and industries. Roads and related infrastructures – but these were primarily for the nuclear plant and its employees. A financial and business boom - but this was highly temperamental and when the plant is operating and radiation levels increase there could be less interest in the area for investors.

Development with its electrified political grid of governmentality brought with it, less the fruits of modernity in terms of ‘goods’. Rather, as Ulrich Beck (1992) maintains, it introduced more ‘bads’: the fear of contamination, loss of livelihood, and a keen sense of repression clearly evidenced in nuclear authorities’ indifference about local grievances and the increased surveillance, policing and militarisation of the region to the relentless beat of national development and energy security.

**Smooth Operators, Rough Operations**
In his reminiscences, Gupta observed: ‘for a large share of India’s population, life off the grid was the normal condition of everyday life’ (2015: 559). In this article in Boyer’s edited edition, he adds an important query, albeit with little of an answer:

The question is how new technologies can make the quality of life higher without reproducing the steps taken by the growth of the carbon economy, and the forms in which electricity has been historically incorporated into the lives of people (2015: 565).

The evidence so far shows that electricity has not been smoothly incorporated into the lives of all people. There are not only internal hierarchies to take on board in any one locality but also external ones in terms of wider national and transnational geopolitics. Boyer’s proposal for energopower, that ‘electricity already works us’ (2015: 531), need be qualified: first, with due consideration to those who are not so reliant on uninterrupted supplies of energy, where life on a smooth grid is not the norm, as Gupta points out. But this does not go far enough. There is also, to lead to the second point, the need to consider those who are brought into biopolitics at the expense of others – those who lie in the twilight zone between the civil and the political, metropolitan and marginal, welfare and warfare, as I have demonstrated here. This leads to my third main point in terms of metropolitan and global inequities that entrench the repression of marginalized communities in the global South when it comes to large-scale power developments entailing transnational treaties and trade. Energopower is not without fracture nor friction (see Tsing 2005).

While I appreciate Boyer’s point about non-nuclear, low-carbon energy as a potential ‘threat to grid’, it need also be brought to the fore that what he refers to as the ‘soft hum of electric currents’ (2015: 532) represses a loud, interruptive and abrasive raw politics that span a tangled skein across the local, national and transitional. This chapter brings the hammer to the hum. The wires are not always neatly hidden away behind the smooth walls of
energopower biopolitics. Rather they can become routed, ruptured, exposed, and even dangerous live wires that have created a manner of death conditions.

Being at the brunt of the raw politics of energy in south India has led to a struggle against what John McMurtry (1998) has described as the ‘cancer-stage of capitalism’ quite literally. With its globalising and mutating market paradigms, global capitalism has multiplied into several carcinogenic eruptions and metastases that may even be decoupled from commercial logics such that alternative visions and autonomous lives become hard to realise. This ‘cancer stage’ has become the prevailing rationality of our times that we often take for granted. Many residents in the embattled vicinity of Kudankulam, however, saw through this governing logic. They believed that, with ‘nuclear capitalism’, the political, social, electrical and the physical were all too worryingly entwined. The contaminated phase of the global political economy has led to a myriad of death conditions with the extreme repression of their lives, and could, indeed, manifest itself in all too critical conditions in terms of somatic cancer-stage pathologies.

It was the rejection of a repressive ‘grid government’ that compelled many to defy the nuclear power plant in south India in favour of peaceful lives unencumbered by the darker side of grid governmentalities. After all, many could see that the electricity was not to power them but to power other interested parties. Electricity did not work them. It worked others. Instead, the marginalised have had to suffer in view of state, corporate and metropolitan interests for a rapidly liberalising and developing economy. Their experience has compelled many to assert that they need people-centric, sustainable sources of energy that are less oppressive to their lives, and, even to reject modernity or grid governmentalities. In the guise of an old manifesto of living, energopower is unplugged. As a young woman, Nirmila, stated, ‘we do not need electricity if we have to pay for it with our lives’.
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2 This is not to overlook cases of necro-polics in the global North as has transpired with nuclear plant accidents and pipeline violence in the US, Canada and in the sea (see Matsen 2011). Nevertheless, governmentality remains idealized as the main tributaries of energopower in the North. Thanks to Tristan Loloum for this point.

3 For a discussion on the complex of Indian middle classes see Brosius (2010), Mazzarella (2005) and Varma (1998).

4 On feminist critiques of this dichotomy, see Nair (1996), Sarkar (2001) and Bannerji (2011).

5 By comparison, in the global North, nuclear companies take particular care of neighboring communities precisely because they are the ones that they most need to convince. This they do through measures to do with public relations, corporate social responsibility, sponsorship, training programs, environmental and community management, and so forth. While cursory measures to do this are evident in India, various ruses are in place so as local opinion is evaded or repressed (see Kaur 2013).

6 On a different argument about ‘biological citizenship’ as it applies to the health claims of victims of the Chernobyl nuclear disaster, see Petryna (2002).


8 For a psychoanalytical interpretation of nuclear necropolitics, see Schwab (2014).

9 On how notions of ‘sacrifice’ apply to the contiguous state of Kerala, see Abraham (2012: 115-7).


12 P.K. Sundaram (2011) ‘Farmers Mourn their Third Martyr in Anti-nuclear Power Struggle, Pledge against another Fukushima (Fatehabad, India)’, September 21,


